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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,159	08/18/2003	Otman A. Basir	60,449-079	3564

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EXAMINER	
RUTLAND WALLIS, MICHAEL	
ART UNIT	**PAPER NUMBER**
2835	

DATE MAILED: 08/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/643,159	BASIR ET AL.	
	Examiner	Art Unit	
	Michael Rutland-Wallis	2835	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 July 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6-12,14,15 and 17-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-12,14,15 and 17-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *05/26/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments, filed 07/19/2006, with respect to the rejection of claims 1-27 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-11 24-25 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Desmarais (U.S. Pat. No. 5,961,144)

With respect to claims 1, 24-25 and 27 Desmarais teaches a user-activated switch comprising: an electrode (item 84 or 86) forming part of a capacitor a capacitor (item 94), a user contact area (area around sensed electric field item 90) adjacent the electrode defining a permittivity (column 7 lines 32-42) of the capacitor, a detection circuit (Fig. 6 item 60) measuring a capacitance of the capacitor (item 94) and activating a switch (signal sent to controller to activate and control vehicle systems) based upon

the measured capacitance the detection circuit including a bridge circuit (item 100 Wheatstone bridge). Those skilled in the art will recognize Wheatstone bridges and variations of such bridges are commonly used to measure electrical characteristics such as: resistance and impedance or to compare capacitance values. Desmarais uses a variation of a Wheatstone bridge in figure 6 to compare the value of capacitance in each branch of the bridge circuit described in column 8 lines 3-13 using a differential measuring circuit item 120 which comprises amplifiers items 122, 126 and 124. Desmarais does not use the terminology "balanced" and "unbalanced" when referring to the comparison performed by the measuring circuit item 120. The bridge circuitry of Desmarais is balanced when the user is not approximate the sensed field item 90 and becomes unbalanced and outputs a voltage signal indicative of the change in the capacitance caused by the change in permittivity when a user or user's hand is proximate the sensed field.

With respect to claim 2 Desmarais teaches the electrode is in a vehicle (item 10).

With respect to claim 3 Desmarais teaches the electrode is on a vehicle steering wheel (item 16).

With respect to claim 4 Desmarais teaches the switch is for activating a vehicle horn (the capacitance connection is in communication with a controller to activate and control item 18 horn system to item 30 horn activator and item 28 horn).

With respect to claim 6 Desmarais teaches including an oscillator (item 108) exciting the bridge circuit.

With respect to claim 7 Desmarais teaches the switch is activated based upon a rate of change of the capacitance.

With respect to claim 8 Desmarais teaches the electrode is mounted adjacent a user manual contact area.

With respect to claim 9 Desmarais teaches the electrode is mounted adjacent a user hand grip area.

With respect to claim 10 Desmarais teaches the electrode is mounted adjacent a user hand contact area adjacent a user hand contact surface of a power device, the switch deactivating (as the bridge becomes "balanced" the output voltage of the detection circuit goes to zero) the power device when no user hand is detected near the electrode.

With respect to claim 11 Desmarais teaches the user hand contact surface is adjacent a user handgrip area.

Claims 12, 15, 17-18 and 21-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Schulz (U.S. Pat. No. 5,880,538)

With respect to claims 12 and 17 Schulz teaches a method for determining a presence (Fig. 1) of a user hand including the steps of: a) measuring a rate of change (column 2 lines 1-12 the rate of change in the capacitance which is caused by the hands altering of the electric field by changing the permittivity approximate the sensor is monitored to determine if it is within a threshold indicative of a user's hand) in permittivity of an area adjacent an electrode caused by the proximity of the user hand;

and b) activating the switch in said step b) based upon the rate of change measure in said step a).

With respect to claims 15 and 18 Schulz teaches the activation of vehicle accessories such as door lock and windshield wipers.

With respect to claim 21 Schulz teaches the steps of) enabling a device (vehicle accessory) based upon the change in capacitance indicating that the hand is present; and d) disabling (lock and unlock or on/off control of at least the wiper controls) the device based upon the change in capacitance indicating that the hand is not present.

With respect to claim 22 Schulz teaches the capacitance adjacent the electrode is adjacent a user manual contact area (door lock grip or windshield wiper activation contact area), such that the switch is activated in said step b) based upon the proximity of the user hand to the user manual contact area.

With respect to claim 23 Schulz teaches the capacitance adjacent the electrode is adjacent a user grip area (door lock grip or wind shield wiper activation grip area), such that the switch is activated in said step b) based upon the proximity of the user hand to the user hand grip area

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 14, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schulz (U.S. Pat. No. 5,880,538) in view of Desmarais (U.S. Pat. No. 5,961,144)

With respect to claims 14 and 20 Schulz teaches the device being controlled or switched may be used to control a variety of control systems see column 2 lines 45-50. Schulz cites lock and windshield wipers as examples, see abstract. Schulz does disclose the control of horn switch. The method of controlling a horn via a capacitor switch detecting the presence of a user is well known in the art see for example Desmarais. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of claim 12 on a vehicle horn in order to facilitate a reliable and simple horn activation for the user.

With respect to claim 19 Schulz teaches the device being controlled or switched may be used to control a variety of control systems see column 2 lines 45-50. Schulz cites lock and windshield wipers as examples, see abstract. Schulz does disclose a light control switch. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a capacitive control switch to control a light as capacitive switched are well known in the art to control vehicle systems.

Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Blackburn et al. (U.S. Pat. No. 5,722,686) Blackburn teaches a vehicle horn switch (Fig. 5) comprising: an electrode (items 66 or 68) mounted on a vehicle steering wheel (seen in Fig. 1), the electrode forming part of a capacitor, a capacitance of the capacitor

changing based upon a presence or absence of a user hand (i.e. detecting when a user body/hand is attempting to activate the horn) adjacent the electrode; and a detection circuit measuring (Fig. 3 or example) the capacitance of the capacitor and activating the horn (column 8 lines 1-7 describes use of capacitor switch may be a horn) based upon the measured capacitance wherein the capacitor is part of an oscillator oscillating at a first frequency (see for example claim 19 of Blackburn) when no hand is present adjacent the electrode and at a second frequency different from the first frequency when the hand is adjacent the electrode, the detection circuit activating the horn switch based upon the frequency of the oscillator.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Rutland-Wallis whose telephone number is 571-272-5921. The examiner can normally be reached on Monday-Thursday 7:30AM-6:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn D. Feild can be reached on 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MRW

LYNN FEILD
SUPERVISORY PATENT EXAMINER